

REMARKS

This Amendment is in response to the Office Action mailed on November 28, 2007, in which claims 19-23 and 42-75 were rejected. With this Amendment claims 19, 20, 21, 42, 49, 52, 60, and 75 are amended. Applicant respectfully requests reconsideration of the present Application in view of the foregoing amendments and the reasons that follow.

1. Examiner Interview Conducted January 30, 2008

On January 30, 2008, Applicant's attorney conducted a telephone interview with Examiner Stewart during which the current amendments to independent claims 19, 42, 52, 60, and 75 were discussed in light of Levisman, U.S. Patent No. 6,350,126, Ganjianpour, U.S. Patent No. 6,716,250, and Dwyer et al., U.S. Patent No. 7,122,056. The amendments to independent claims 19, 42, 52, 60, and 75 are intended to reflect the outcome of the discussion with the Examiner. The amendment to independent claim 19 is intended to clarify that the step of "removing the shaft from the patient" occurs "without removing both the body and the head." The amendment to independent claim 42 is intended to clarify that "the first shaft has an outer surface adapted to interface with the intramedullary canal of the patient." The amendment to independent claim 52 is intended to clarify that the shaft has "an outer surface adapted to interface with an inner surface of the long bone of the patient." The amendment to independent claim 60 is intended to clarify that "the first shaft has an outer surface adapted to contact an inner surface of the bone." The amendment to independent claim 75 is intended to clarify that "the first shaft has an outer surface adapted to interface with an intramedullary canal." These amendments are intended to distinguish over the disclosures of Levisman, Ganjianpour, and Dwyer et al.

It is Applicant's understanding that the Examiner agrees that independent claims 19, 42, 52, 60, and 75, as amended, overcome the rejections based on Levisman, Ganjianpour, and Dwyer et al. Applicant understands that additional searching may be required by the Examiner, and therefore has filed the present amendment along with a Request for Continued Examination.

2. Rejection of Claim 49 Under 35 U.S.C. § 112 ¶ 2

On page 2 of the Office Action, the Examiner rejected claim 49 under 35 U.S.C. § 112 ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Claim 49 has been amended and is definite and in compliance with 35 U.S.C. § 112 ¶ 2. Claim 49 has been amended to clarify that the “second replacement shaft is longer than the first shaft.” (emphasis added). The Applicant requests withdrawal of the rejection of claim 49 under 35 U.S.C. § 112 ¶ 2.

3. Rejection of Claims 19-21 Under 35 U.S.C. § 102(b) as Anticipated by Levisman

On page 2 of the Office Action, the Examiner rejected claims 19-21 under 35 U.S.C. § 102(b) as anticipated by Levisman, U.S. Patent No. 6,350,126. Applicant has amended independent claim 19 to overcome the rejection of claims 19-21 based on Levisman.

Independent claim 19, as amended, recites a “method of replacing a shaft of a joint prosthesis” including the step of “removing the shaft from the patient without removing both the body and the head.” The amendment to claim 19 is supported by the specification as originally filed. See e.g., Application, paragraph [0036]. As agreed to during the examiner interview, Levisman does not identically disclose a method including the step of “removing the shaft without removing both the body and the head” as recited in independent claim 19. In contrast, Levisman discloses a prosthesis wherein the removal of “stud 24” (identified as the “shaft” by the Examiner) necessitates the removal of the “abutment 25” (identified as the “head” by the Examiner). See Office Action, page 3. “Abutment 25” appears to be affixed to and positioned above “stud 24” such that removal of “stud 24” would also require removal of “abutment 25.” See col. 5, lines 47-54 and Fig. 4.

In view of the amendments to independent claim 19 and the arguments set forth above, Applicant respectfully asserts that independent claim 19 and the corresponding dependent claims 20 and 21 are not anticipated by Levisman under 35 U.S.C. § 102(b).

4. Rejection of Claims 42-48, 50-69, 71, 73, and 74 Under 35 U.S.C. § 102(e) as Anticipated by Ganjianpour

On page 3 of the Office Action, the Examiner rejected claims 42-48, 50-69, 71, 73, and 74 under 35 U.S.C. § 102(e) as anticipated by Ganjianpour, U.S. Patent No. 6,716,250. Applicant has amended independent claims 42, 52, and 60 to overcome the rejection based on Ganjianpour.

Independent claim 42, as amended, recites a “joint prosthesis system” including “a first shaft ... wherein the first shaft has an outer surface adapted to interface with the intramedullary canal of the patient, and further wherein the first shaft is interchangeable ... without dislodging the body from the patient.” Independent claim 52, as amended, recites a “modular joint prosthesis” including “a shaft ... having an outer surface adapted to interface with an inner surface of the long bone of the patient; wherein the shaft may be removed from the patient ... without also removing the body.” Independent claim 60, as amended, recites a “modular joint prosthesis system” including “a first shaft extending into a bone ... wherein the first shaft has an outer surface adapted to contact an inner surface of the bone, and further wherein the second replacement shaft is used to replace the first shaft ... without removing the body from the patient.” As agreed to during the examiner interview, Ganjianpour does not identically disclose each of the limitations of independent claims 42, 52, and 60, as amended.

In contrast, Ganjianpour discloses a “neck element 44,” a “stem element 40,” a “grooved shaft 42,” and a “locking means 48.” See col. 8, lines 51-56 and Fig. 8. Neither the “grooved shaft 42” nor the “locking means 48” have an “outer surface adapted to interface with the intramedullary canal of the patient,” as recited in independent claim 42, or an “outer surface adapted to interface with an inner surface of the long bone of the patient,” as recited in independent claim 52, or an “outer surface adapted to contact an inner surface of the bone,” as recited in independent claim 60. In addition, “stem element 40” of Ganjianpour is positioned beneath “neck element 44” such that removal of “stem element 40” would necessitate removal of “neck element 44.” See Figs. 7 and 8. As such, “stem element 40” of Ganjianpour is not a “first

shaft” that is “interchangeable after implantation of the prosthesis ... without dislodging the body from the patient,” as recited in independent claim 42, or a “shaft [that] may be removed from the patient ... without also removing the body,” as recited independent claim 52, or a “first shaft” where a “second replacement shaft is used to replace the first shaft ... without removing the body from the patient,” as recited in independent claim 60.

In view of the amendments to independent claims 42, 52, and 60 and the arguments set forth above, Applicant respectfully asserts that independent claims 42, 52, and 60 and corresponding dependent claims 43-48, 50-51, 53-59, 61-69, 71, 73, and 74 are not anticipated under 35 U.S.C. § 102(e).

5. Rejection of Claims 19-23 Under 35 U.S.C. § 103(a) Based Upon Dwyer et al.

On pages 4-5 of the Office Action, the Examiner rejected claims 19-23 under 35 U.S.C. § 103(a) as unpatentable over Dwyer et al., U.S. Patent No. 7,122,056. Independent claim 19 has been amended to recite a combination of subject matter that the Applicant believes is allowable under 35 U.S.C. § 103(a).

Independent claim 19, as amended, recites a “method of replacing a shaft of a joint prosthesis” including the step of “removing the shaft from the patient without removing both the body and the head.” The amendment to claim 19 is supported by the specification as originally filed. See e.g., Application, paragraph [0036]. As agreed to during the examiner interview, Dwyer et al. does not disclose, teach, or suggest “removing the shaft from the patient without removing both the body and the head” as recited in independent claim 19, as amended. In contrast Dwyer et al. discloses a “modular femoral prosthesis 10” having a “neck component 12,” a “sleeve component 14,” and a “trunnion 26.” See col. 5, lines 48-49, col. 6, lines 19-43, and Fig. 3. The Applicant respectfully asserts that the “method of replacing a shaft of a joint prosthesis” recited in independent claim 19, as amended, would not have been obvious in view of Dwyer et al. under 35 U.S.C. § 103(a).

In view of the amendments to independent claim 19 and the arguments set for above, Applicant respectfully asserts that independent claim 19 and corresponding dependent claims 20-23 are patentable over Dwyer et al. under 35 U.S.C. § 103(a).

6. Rejection of Claim 75 Under 35 U.S.C. § 103(a) Based Upon Ganjianpour

On page 5 of the Office Action, the Examiner rejected independent claim 75 under 35 U.S.C. § 103(a) as unpatentable over Ganjianpour. Independent claim 75 has been amended to recite a combination of subject matter that the Applicant believes is allowable under 35 U.S.C. § 103(a).

Independent claim 75 recites an “artificial joint system” including “a body having a central canal” and “a first shaft extending at least partially through the central canal ... wherein the first shaft has an outer surface adapted to interface with an intramedullary canal.” As agreed to during the examiner interview, Ganjianpour does not disclose, teach or suggest an “artificial joint system” including “a body having a central canal” and “a first shaft extending at least partially through the central canal ... wherein the first shaft has an outer surface adapted to interface with an intramedullary canal.” The Applicant respectfully asserts that the “artificial joint system” recited in independent claim 75 would not have been obvious in view of Ganjianpour.

In view of the amendments to independent claim 75 and the arguments set for above, Applicant respectfully asserts that independent claim 75 is patentable over Ganjianpour under 35 U.S.C. § 103(a).

7. Rejection of Claims 49 and 70 Under 35 U.S.C. § 103(a) Based Upon Ganjianpour

On page 5 of the Office Action, the Examiner rejected claims 49 and 70 under 35 U.S.C. § 103(a) as unpatentable over Ganjianpour. As discussed above, independent claims 42 and 60 have been amended to overcome the rejection based on Ganjianpour. Ganjianpour does not

disclose, teach or suggest “a first shaft ... wherein the first shaft has an outer surface adapted to interface with the intramedullary canal of the patient, and further wherein the first shaft is interchangeable after implantation of the prosthesis... without dislodging the body from the patient,” as recited in independent claim 42, or a “a first shaft extending into a bone ... wherein the first shaft has an outer surface adapted to contact an inner surface of the bone, and further wherein the second replacement shaft is used to replace the first shaft ... without removing the body from the patient,” as recited in independent claim 60. Accordingly, claim 49, which depends from independent claim 42, and claim 70, which depends from independent claim 60, are presented for reconsideration and allowance.

8. Rejection of Claim 72 Under 35 U.S.C. § 103(a) Based Upon Ganjianpour in view of Levisman

On page 6 of the Office Action, the Examiner rejected claim 72 under 35 U.S.C. § 103(a) as unpatentable over Ganjianpour in view of Levisman. As discussed above, independent claim 60 has been amended to overcome the rejection based on Ganjianpour. The “bone implant” of Levisman does not remedy the deficiencies of Ganjianpour. The “bone implant” of Levisman does not disclose, teach or suggest “a first shaft extending into a bone ... wherein the first shaft has an outer surface adapted to contact an outer surface of the bone, and further wherein the second replacement shaft is used to replace the first shaft ... without removing the body from the patient” as recited in independent claim 60. Accordingly, claim 72, which depends from independent claim 60, is presented for reconsideration and allowance.

9. Amendments to Claims 20 and 21

Applicant has amended claims 20 and 21 to ensure sufficient a antecedent basis for the limitation, “the aperture of the body,” present in claims 20 and 21.

10. Conclusion

Claims 19-23 and 42-75 are pending in the present application. Claims 19, 20, 21, 42, 49, 52, 60, and 75 have been amended. Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application, as amended, is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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